

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A process of manufacturing membrane-electrode assemblies, said process comprising

forming an electrolyte membrane by a film casting method in which a solution of a proton conductive polymer in a first organic solvent is flow cast on a film-casting substrate to form a wet film, and the electrolyte membrane is obtained by reducing an amount of residual solvent in the wet film, wherein the electrolyte membrane contains residual solvent in an amount of ~~5 parts~~ 1 part by weight or less based on 100 parts by weight of the proton conductive polymer;

applying a second solvent to at least one facing surface of an electrode substrate and the electrolyte membrane; and

then pressure bonding said electrolyte membrane with said electrode substrate[s] to form a membrane-electrode assembly,

~~wherein a second solvent is applied to at least one of facing surfaces of the opposed electrode substrate and the electrolyte membrane prior to the pressure bonding;~~

wherein the second solvent is applied in an amount of from 0.001 mg/cm² to 10 mg/cm².

2. (Previously Presented) The process as claimed in claim 1, wherein the second solvent for the electrolyte membrane is applied to both of the facing surfaces of the opposed electrolyte membrane and the electrode substrate.

3. (Cancelled)
4. (Previously Presented) The process as claimed in claim 1, wherein the electrolyte membrane comprises a sulfonated aromatic polymer.
5. (Previously Presented) The process as claimed in claim 4, wherein the second solvent for the electrolyte membrane is an aprotic dipolar solvent.
6. (Original) The process as claimed in claim 4, wherein the sulfonated aromatic polymer is a sulfonated polyarylene.
7. (Cancelled)
8. (Previously Presented) The process as claimed in claim 1, wherein the amount of residual solvent in the wet film is reduced by soaking the wet film in water.
9. (Previously Presented) The process as claimed in claim 1, wherein the second solvent for the electrolyte membrane is applied to at least the facing surface of the electrode substrate.
10. (Previously Presented) The process as claimed in claim 1, wherein a pressure in the pressure bonding is in the range of 0.5 to 20 MPa.

11. (Previously Presented) The process as claimed in claim 1, wherein the second solvent is applied in an amount of from 0.01 mg/cm² to 1 mg/cm².

12. (Currently Amended) A process of manufacturing membrane-electrode assemblies, said process comprising

forming an electrolyte membrane by (a) producing a wet electrolyte membrane film by a film casting method in which a solution of a proton conductive polymer in a first organic solvent is flow cast on a film-casting substrate, and (b) reducing an amount of residual solvent in the wet electrolyte membrane film to form the electrolyte membrane;

applying a second solvent to at least one facing surface of an electrode substrate and the electrolyte membrane; and

then pressure bonding said electrolyte membrane with said electrode substrate[s] to form a membrane-electrode assembly[,]

~~wherein a second solvent is applied to at least one of facing surfaces of the opposed electrode substrate and the electrolyte membrane prior to the pressure bonding.~~

13. (Currently Amended) A process of manufacturing membrane-electrode assemblies, said process comprising

forming an electrolyte membrane by (a) producing a wet electrolyte membrane film by a film casting method in which a solution of a proton conductive polymer in a first organic solvent is flow cast on a film-casting substrate, (b) reducing an amount of

residual solvent in the wet electrolyte membrane film by soaking in water, and (c) drying the soaked, wet electrolyte membrane film to form the electrolyte membrane;

applying a second solvent to at least one facing surface of an electrode substrate and the electrolyte membrane; and

then pressure bonding said electrolyte membrane with said electrode substrate[s] to form a membrane-electrode assembly[.]

~~wherein a second solvent is applied to at least one of facing surfaces of the opposed electrode substrate and the electrolyte membrane prior to the pressure bonding.~~

14. (Previously Presented) The process as claimed in claim 1, wherein the second solvent has a dielectric constant of 20 or more.

15. (Previously Presented) The process as claimed in claim 1, wherein the second solvent is at least one selected from the group consisting of N,N-dimethylacetamide, N-methyl-2-pyrrolidone, γ -butyrolactone, tetramethylurea, dimethylsulfoxide, hexamethylphosphoric triamide and sulfolane.